

Appl. No. 10/782,281
Amdt. Dated 3/9/2006
Response to Office action dated 11/15/2005

REMARKS

The Examiner is thanked for his allowance of claims 9-12 and 18.

Claims 1, 5 and 13 have been amended. New claims 21-25 have been added. Claims 1-25 are pending.

Disclaimers Relating to Claim Interpretation and Prosecution History Estoppel

Claims 1, 5 and 13 have been amended, notwithstanding the belief that these claims were allowable. Except as specifically admitted below, no claim elements have been narrowed. Rather, cosmetic amendments have been made to the claims and to broaden them in view of the cited art. Claims 1, 5 and 13 have been amended solely for the purpose of expediting the patent application process, and the amendments were not necessary for patentability.

Any reference herein to "the invention" is intended to refer to the specific claim or claims being addressed herein. The claims of this application are intended to stand on their own and are not to be read in light of the prosecution history of any related or unrelated patent or patent application. Furthermore, no arguments in any prosecution history relate to any claim in this application, except for arguments specifically directed to the claim.

Interview

The Examiner is thanked for his comments in the interview of 3-8-2006. Claim 1 was discussed with respect to the Shirosugi reference. The undersigned explained that Shirosugi disclosed only that the heating elements could be turned on or off, but that there was otherwise no control over the amount of power to the heating elements. The undersigned proposed amending claim 1 to recite that "the first value" and "the second value" were selected from a group or range. The Examiner kindly indicated that this limitation would define over Shirosugi. The Examiner asked that, if the amendment were formally made, the undersigned identify support in the specification.

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The Examiner also noted that he believed that the art probably disclosed having variable control of power to inductive fuser-heaters, and that if so, with the proposed amendments claim 1 probably would be obvious. The undersigned promised to undertake a search on this point and adjust the approach accordingly.

Information Disclosure Statements

As promised during the interview, a search was undertaken for prior art directed to variable control of power to inductive fuser-heaters. An IDS is therefore filed with this response.

It is noted that USP 6,989,516 (Domoto) is not prior art, and is instead provided to show the relative state of the art. Indeed, given Domoto's later filing date, it seems that there may be a substantial new issue of Domoto's patentability. This may be a matter for discussion with examiner Quang Van, who examined Domoto.

Specification

The Examiner objected to the abstract of the disclosure because it uses the term "comprise". This objection is respectfully traversed. A substitute abstract is presented herein.

Claim Rejections - 35 USC § 112

The Examiner rejected claims 16 and 20 under 35 USC § 112, first paragraph as claiming subject matter which is not disclosed in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. In particular, the Examiner stated that "The limitations 'third value' and 'fourth value' were not included in the claims as originally filed and are not discussed in the Specification." This rejection is respectfully traversed. It appears that the issue is one of claim interpretation rather than adequacy of disclosure.

Claim 16 is directed to a developer fuser including a "controller". Claim 20 is directed to a process for reducing power consumption in a developer fuser and includes steps of "controlling". Claims 16 and 20 have similar limitations, "controlling a third value of a second parameter of the

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first heating element and a fourth value of the second parameter of the second heating element". Both claims 16 and 20 are dependant, and their parent claims recite "controlling a first value of a first parameter of the first heating element and a second value of a second parameter of the second heating element".¹ Thus, for each heating element there are two parameters each having a respective value, for a total of four values recited in these claims:

<u>heating element</u>	<u>parameter</u>	<u>value</u>
first heating element	first parameter	first value
second heating element	first parameter	second value
first heating element	second parameter	third value
second heating element	second parameter	fourth value

The specification clearly discloses that a controller can control the values of multiple parameters of two heating elements. Paragraph 42 of the specification recites, "The print CPU 90 may also control at least one of power to, current through, frequency to, resonance of, inductance of, voltage across, and temperature at a first heating element 111 and a second heating element 111." Thus, the specification in paragraph 42 clearly discloses seven parameters and two heating elements, and that the print CPU can control the values of these parameters. Accordingly, one skilled in the relevant art would readily understand from at least paragraph 42 that the inventor had possession of the inventions of claims 16 and 20. The Examiner should therefore withdrawal the § 112 rejection.

Claim Rejections - 35 USC § 102

The Examiner rejected claims 1-5, 7, 8, 13-17, 19 and 20 under 35 USC § 102(b) as anticipated by Shirotsugi (JP 08-110731). This rejection is respectfully traversed.

¹ Actually, claim 13, from which claim 20 depends, recites "a first heating element ... a second heating element" and not "the first heating element ... the second heating element". This difference is not significant here.

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Shirosugi discloses a heating control system for a fixing device. Shirosugi's apparatus includes a main heater and a sub-heater, and has an ability to control whether each of the heaters is turned on or turned off.

Claims 1 recites "the first value and the second value are variable and set according to a physical characteristic of the media, a physical characteristic of a toner to be applied to the media, and an environmental condition". This is a new limitation, and is supported by Figure 7 and paragraphs 53-59.

Shirosugi does not disclose, teach or suggest the apparatus of claim 1, because Shirosugi discloses only turning on or turning off the heaters based upon paper size. The specification discloses that size is a physical characteristic of the media. Yet, neither Shirosugi nor the cited references disclose setting values for two or more heating elements based upon "a physical characteristic of the media, a physical characteristic of a toner to be applied to the media, and an environmental condition." Thus, claim 1 is allowable over the art of record.

Claims 5 and 13 have similar recitations to claim 1 and are allowable for similar reasons.

Claims 15 and 19 recite that "the first parameter is selected from" a group, and this group includes "current through ... the respective heating element." Shirosugi discloses controlling whether current *to* a heating element is on or off, but the claims are limited to "power to" and "current *through*". These are not the same. Because this is a patentably distinct feature, new claims 21-24 have been added.²

Claim Rejections - 35 USC § 103

The Examiner rejected claim 6 under 35 USC § 103(a) as obvious from Shirosugi in view of Shigeta (JP 2002-167081). This rejection is respectfully traversed. Given that claim 5 is allowable over Shirosugi, claim 6 (which depends on claim 5) is allowable as well.

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The Examiner relied upon Shigeta as disclosing media thickness, and stated that this is one of the members of the group recited in claim 6. New claim 25 has been added and is similar to original claim 6, but "the media thickness datum" has been excluded from the group

Conclusion

It is submitted, however, that the independent and dependent claims include other significant and substantial recitations which are not disclosed in the cited references. Thus, the claims are also patentable for additional reasons. However, for economy the additional grounds for patentability are not set forth here.

In view of all of the above, it is respectfully submitted that the present application is now in condition for allowance. Reconsideration and reexamination are respectfully requested and allowance at an early date is solicited.

The Examiner is invited to call the undersigned attorney to answer any questions or to discuss steps necessary for placing the application in condition for allowance.

Respectfully submitted,

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Steven C. Sereboff, Reg. No. 37,035

SoCal IP Law Group LLP
310 N. Westlake Blvd., Suite 120
Westlake Village, CA 91362
Telephone: 805/230-1350
Facsimile: 805/230-1355
email: info@socalip.com

² The Examiner also stated that Shirotsugi's disclosure of "current to" is the same as the claimed "power to". New claims 21-24 do not recite "power to".